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(s) Linda S. Evans
Linda S. Evans

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Bittner et al. Atty. Docket: ORT1563NP
Serial No.: 10/753,107 Art Unit: 1631
Filed: January 6, 2004 Examiner: unknown
For: Methods And Algorithms For Performing Quality Control During Gene Expression Profiling On DNA Microarray Technology.

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. § 1.56 and in accordance with 37 C.F.R. §§ 1.97-1.98, Applicant submits the accompanying Form PTO-1449 citing references relating to the application.

This Statement is being filed under the provisions of 37 C.F.R. § 1.97(b)(3), i.e., before the mailing of a first Office Action on the merits. In the event that a first Office Action on the merits has been mailed, then this Statement is being filed under 37 C.F.R. § 1.97(c)(2) and the Commissioner is requested to charge Deposit Account No. 10-0750 for the \$180.00 fee set forth in 37 C.F.R. § 1.17(p).

A copy of each reference listed on the Form PTO-1449 is enclosed. Each reference is in the English language.

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This Statement should not be construed as an admission that any information provided herewith is material as that term is defined in 37 C.F.R. § 1.56(b) or that any cited reference qualifies as prior art. This Statement should not be construed as a representation that a search has been made, or that information more material does not exist.

The Examiner is respectfully requested to initial the citations on the Form PTO-1449 to confirm consideration of each reference.

If any fees are due in connection with the filing of this Statement, please charge any necessary fees to Deposit Account No. 10-0750.

Respectfully submitted,

Date: August 30, 2004.



Linda S. Evans
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Sheet 1 of 6

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
ORT1563NPSERIAL NO.
10/753,107**INFORMATION DISCLOSURE
CITATION BY APPLICANT**

(Use several sheets if necessary)

APPLICANT
Bittner et al.FILING DATE
06 January 2004GROUP ART UNIT
1631**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	INVENTORS	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	US	3 8 1 7 8 3 7	June 18, 1974	Rubenstein et al.			
	US	3 8 5 0 7 5 2	November 26, 1974	Schuurs et al.			
	US	3 9 3 9 3 5 0	February 17, 1976	Kronick et al.			
	US	3 9 9 6 3 4 5	December 7, 1976	Ullman et al.			
	US	4 2 7 5 1 4 9	June 23, 1981	Litman et al.			
	US	4 2 7 7 4 3 7	July 7, 1981	Maggio			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY/REGION	CLASS	SUBCLASS	TRANSLATION (if applicable)
	WO	9 5 3 5 5 0 5	December 28, 1995	WIPO			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Amit et al., "Photosensitive Protecting Groups Of Amino Sugars And Their Use In Glycoside Synthesis. 2-Nitrobenzyloxycarbonylamino And 6-Nitroveratryloxycarbonylamino Derivatives," <i>J. Org. Chem.</i> , Vol. 39(2), pp. 192-196 (1974)
		Barringer et al., "Blunt-End And Single-Strand Ligations By Escherichia Coli Ligase: Influence On An In Vitro Amplification Scheme," <i>Gene</i> , Vol. 89, pp. 117-122 (1990)
		Beaucage et al., "Deoxynucleoside Phosphoramidites-A New Class Of Key Intermediates For Deoxypolynucleotide Synthesis," <i>Tetrahedron Lett.</i> , Vol. 22(20), pp. 1859-1862 (1981)
		Beaucage et al., "Advances In The Synthesis Of Oligonucleotides By The Phosphoramidite Approach," <i>Tetrahedron</i> , Vol. 48(12), pp. 2223-2311 (1992)
		Blanchard et al., "High-Density Oligonucleotide Arrays," <i>Biosensors and Bioelectronics</i> , Vol. 11(6/7), pp. 687-690 (1996)
		Brown et al., "Knowledge-Based Analysis Of Microarray Gene Expression Data By Using Support Vector Machines," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 97(1), pp. 262-267 (2000)
		Caruthers et al., "New Chemical Methods for Synthesizing Polynucleotides," <i>Nucl. Acids Symp. Series.</i> , No. 7, pp. 215-223 (1980)
		Chen et al., "Ratio-Based Decisions And The Quantitative Analysis Of cDNA Microarray Images," <i>J. Biomed. Optics</i> , Vol. 2(4), pp. 364-367 (1997)
		Cho et al., "A Genome-Wide Transcriptional Analysis Of The Mitotic Cell Cycle," <i>Mol. Cell</i> , Vol. 2, pp. 65-73 (1998)

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U.S. PATENT DOCUMENTS

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	US	4 3 6 6 2 4 1	December 28, 1982	Tom et al.			
	US	4 4 1 5 7 3 2	November 15, 1983	Caruthers et al.			
	US	4 4 5 8 0 6 6	July 3, 1984	Caruthers et al.			
	US	4 7 2 5 6 7 7	February 16, 1988	Köster et al.			
	US	4 9 8 0 4 6 0	December 25, 1990	Molko et al.			
	US	4 9 7 3 6 7 9	November 27, 1990	Caruthers et al.			
	US	5 1 4 3 8 5 4	September 1, 1992	Pirrung et al.			
	US	5 2 4 2 9 7 4	September 7, 1993	Holmes			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY/REGION	CLASS	SUBCLASS	TRANSLATION (if applicable)

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Duggan, et al., "Expression Profiling Using cDNA Microarrays," <i>Nature Genetics Supplement</i> , Vol. 21, pp. 10-14 (1999)
		Eisen et al., "Cluster Analysis And Display Of Genome-Wide Expression Patterns," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 95, pp. 14863-14868 (1998)
		Ermolaeva et al., "Data Management And Analysis For Gene Expression Arrays," <i>Nature Genet.</i> , Vol. 20, pp. 19-23 (1998)
		Getz et al., "Coupled Two-Way Clustering Analysis Of Gene Microarray Data," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 97(22), pp. 12079-12084 (2000)
		Guatelli et al., "Isothermal, In Vitro Amplification Of Nucleic Acids By A Multienzyme Reaction Modeled After Retroviral Replication," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 87, pp. 1874-1878 (1990)
		Heller et al., "Discovery And Analysis Of Inflammatory Disease-Related Genes Using cDNA Microarrays," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 94, pp. 2150-2155 (1997)
		Holter et al., "Fundamental Patterns Underlying Gene Expression Profiles: Simplicity From Complexity," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 97(15), pp. 8409-8414 (2000)
		Kimmel, "Identification And Characterization Of Specific Clones: Strategy For Confirming The Validity Of Presumptive Clones," <i>Methods Enzymol</i> , Vol. 152, pp. 507-511 (1987)
		Kwoh et al., "Transcription-Based Amplification System And Detection Of Amplified Human Immunodeficiency Virus Type 1 With A Bead-based Sandwich Hybridization Format," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 86, pp. 1173-1177 (1989)
		Landegren et al., "A Ligase-Mediated Gene Detection Technique," <i>Science</i> , Vol. 241, pp. 1077-1080 (1988)

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	US	5 2 8 8 6 4 4	February 22, 1994	Beavis et al.			
	US	5 3 2 4 6 3 3	June 28, 1994	Fodor et al.			
	US	5 3 8 4 2 6 1	January 24, 1995	Winkler et al.			
	US	5 4 0 5 7 8 3	April 11, 1995	Pirrung et al.			
	US	5 4 1 2 0 8 7	May 2, 1995	McGall et al.			
	US	5 4 2 4 1 8 6	June 13, 1995	Fodor et al.			
	US	5 4 2 9 8 0 7	July 4, 1995	Matson et al.			
	US	5 4 3 2 0 4 9	July 11, 1995	Fischer et al.			
	US	5 4 3 6 3 2 7	July 25, 1995	Southern et al.			

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Lipshutz et al., "High Density Synthetic Oligonucleotide Arrays," <i>Nature Genet. Supplement</i> , Vol. 21, pp. 20-24 (1999)
		Lockhart et al., "Expression Monitoring By Hybridization To High-Density Oligonucleotide Arrays," <i>Nature Biotechnol.</i> , Vol. 14, pp. 1675-1680 (1996)
		Lockhart et al., "Genomics And DNA Chips," <i>Nucl. Acids Symp. Series</i> , pp. 11-12 (1998)
		Maskos and Southern, "A Study Of Oligonucleotide Reassociation Using Large Arrays Of Oligonucleotides Synthesised On A Glass Support," <i>Nucl. Acids Res.</i> , Vol. 21(20), pp. 4663-4669 (1993)
		Matteucci and Caruthers, "Synthesis Of Deoxyoligonucleotides On A Polymer Support ¹ ," <i>J. Am. Chem. Soc.</i> , Vol. 103(11), pp. 3185-3191 (1981)
		Patchornik et al., "Photosensitive Protecting Groups," Communication to Editor, <i>J. Am. Chem. Soc.</i> , Vol. 92(21), pp. 6333-6335 (1970)
		Schena et al., "Parallel Human Genome Analysis: Microarray-Based Expression Monitoring of 1000 Genes," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 93, pp. 10614-10619 (1996)

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	US	5 4 4 5 9 3 4	August 29, 1995	Fodor et al.			
	US	5 4 7 0 7 1 0	November 28, 1995	Weiss et al.			
	US	5 4 7 2 6 7 2	December 5, 1995	Brennan			
	US	5 4 9 2 8 0 6	February 20, 1996	Drmanac et al.			
	US	5 5 0 3 9 8 0	April 2, 1996	Cantor			
	US	5 5 1 0 2 7 0	April 23, 1996	Fodor et al.			

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		DOCUMENT NUMBER	DATE	COUNTRY/REGION	CLASS	SUBCLASS	TRANSLATION (if applicable)

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Schena et al., "Microarrays: Biotechnology's Discovery Platform For Functional Genomics," <i>Trends Biotechnol.</i> , Vol. 16, pp. 301-306 (1998)
		Shalon, "Gene Expression Micro-Arrays: A New Tool For Genomic Research," <i>Pathol. Biol.</i> , Vol. 46(2), pp. 107-109 (1998)
		Tamayo et al., "Interpreting Patterns Of Gene Expression With Self-Organizing Maps: Methods And Application to Hematopoietic Differentiation," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 96, pp. 2907-2912 (1999)
		Wahl et al., "Molecular Hybridization Of Immobilized Nucleic Acids: Theoretical Concepts And Practical Considerations," <i>Methods Enzymol.</i> , Vol. 152, pp. 399-407 (1987)
		Welford et al., "Detection Of Differentially Expressed Genes In Primary Tumor Tissues Using Representational Differences Analysis Coupled To Microarray Hybridization," <i>Nucl. Acids Res.</i> , Vol. 26(12), pp. 3059-3065 (1998)
		Wheeler et al., "Database Resources Of The National Center For Biotechnology Information," <i>Nucl. Acids Res.</i> , Vol. 29(1), pp. 11-16 (2001)

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	US	5 5 1 4 5 4 5	May 7, 1996	Eberwine			
	US	5 5 2 5 4 6 4	June 11, 1996	Drmanac et al.			
	US	5 5 2 7 6 8 1	June 18, 1996	Holmes			
	US	5 5 2 9 7 5 6	June 25, 1996	Brennan			
	US	5 5 4 5 5 3 1	August 13, 1996	Rava et al.			
	US	5 5 4 7 8 3 9	August 20, 1996	Dower et al.			
	US	5 5 5 4 5 0 1	September 10, 1996	Coassin et al.			
	US	5 5 5 6 7 5 2	September 17, 1996	Lockhart et al.			
	US	5 5 6 1 0 7 1	October 1, 1996	Hollenberg et al.			
	US	5 5 7 1 6 3 9	November 5, 1996	Hubbell et al.			
	US	5 5 8 0 7 3 2	December 3, 1996	Grossman et al.			
	US	5 5 9 3 8 3 9	January 14, 1997	Hubbell et al.			
	US	5 6 2 4 7 1 1	April 28, 1997	Sundberg et al.			
	US	5 6 6 1 0 2 8	August 26, 1997	Foote			
	US	5 7 0 0 6 3 7	December 23, 1997	Southern			
	US	5 7 4 4 3 0 5	April 28, 1998	Fodor et al.			
	US	5 7 7 0 4 5 6	June 23, 1998	Holmes			
	US	5 7 7 0 7 2 2	June 23, 1998	Lockhart et al.			
	US	5 8 3 7 8 3 2	November 17, 1998	Chee et al.			
	US	5 8 4 8 6 5 9	December 15, 1998	Karg et al.			
	US	5 8 5 6 1 0 1	January 5, 1999	Hubbell et al.			
	US	5 8 7 4 2 1 9	February 23, 1999	Rava et al.			
	US	5 8 8 5 8 3 7	March 23, 1999	Winkler et al.			

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		Wu et al., "The Ligation Amplification Reaction (LAR)-Amplification Of Specific DNA Sequences Using Sequential Rounds Of Template-Dependent Ligation," <i>Genomics</i> , Vol. 4, pp. 560-569 (1989)

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	US	5 9 1 9 5 2 3	July 6, 1999	Sundberg et al.			
	US	6 0 2 2 9 6 3	February 8, 2000	McGall et al.			
	US	6 0 7 7 6 7 4	June 20, 2000	Schleifer et al.			
	US	6 0 9 3 3 0 2	July 25, 2000	Montgomery			
	US	6 1 5 6 5 0 1	December 5, 2000	McGall et al.			
	US	6 2 8 0 5 9 5	August 28, 2001	Montgomery			

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